| | Application No. | Applicant(s) |
|---|---|---|
| **Notice of Allowability** | 10/814,117 | LAVALLEE ET AL. |
| | Examiner | Art Unit | |
| | MARSHALL MCLEOD | 2457 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *11/14/2008*.

2. ☒ The allowed claim(s) is/are *1-56*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All    b) ☐ Some*    c) ☐ None    of the:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the
           International Bureau (PCT Rule 17.2(a)).
    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .
    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____ .
    **Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**
1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *11/12/2008* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____ .

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457

## EXAMINER'S AMENDMENT

1.      An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Paul P. Kriz on the 12 November 2008.


1. (Currently Amended) A method for providing management information

associated with a storage area network, the method comprising steps of:

displaying a physical network topology associated with the storage area network on a display

screen, the physical network topology including identification of at least one switch resource that

supports connectivity among host resources and storage resources in the storage area network;

receiving a signal indicating a selected at least one managed resource associated with the storage

area network; and

displaying a virtual network topology associated with the selected at

least one managed resource in relation to the physical network topology;

displaying an expandable folder in a hierarchical tree, the hierarchical tree including resources

present in the storage area network:

displaying multiple selectable symbols in the expandable folder,

each of the multiple selectable symbols in the folder representing

corresponding zones in the storage area network;

receiving selection of a given selectable symbol in the folder;

in response to receiving the selection of the given selectable symbol, overlaying a selected zone,

as represented by the given selectable symbol, on the physical ,network topology;

wherein overlaying the selected zone on the physical, network topology includes: highlighting

which portions of the physical network topology represent the selected zone;

utilizing distinctive markings in the hierarchical tree to indicate the selected zone in the folder;

and

wherein highlighting which portions of the physical network topology represent the selected

zone, includes: utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent the selected zone from the folder;

for each additional zone selected from the folder:

utilizing distinctive markings in the physical network topology to indicate each additionally

selected zone; utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology ,represent each additionally selected zone in the

folder; and the distinctive markings in the folder and the distinctive markings in the physical

network topology enabling a viewer to identify which portions of the physical network topology

correspond to different selected zones in the folder.


8. (Cancelled).

9. (Cancelled).

10. (Cancelled).

16. (Currently Amended) A method for displaying management information associated with a

storage area network on a display screen, the method comprising.

in a first region of the display screen:

displaying multiple icons representing corresponding selectable managed entities associated with

the storage area network, at least one of the selectable managed entities representing a virtual

network topology that may be selected for viewing in a second region of the display screen; in

the second region of the display screen:

displaying a physical network topology associated with the storage area network, the physical

network topology including at least one switch resource that supports connectivity among host

resources and storage resources in the storage area network; and

displaying the virtual storage area network topology based on a selection of at least one of the

multiple icons, the virtual storage area network i) being overlayed on the physical network

topology, and ii) including identified ports of the at least one switch resource that are associated

with a corresponding virtual storage area network

displaying an expandable folder in a hierarchical tree, the hierarchical tree including resources

present in the storage area network;

displaying multiple selectable symbols in the expandable folder, each of the multiple selectable

symbols in the folder representing corresponding zones in the storage area network;

receiving selection of a given selectable symbol in the folder; in response to receiving the

selection of the given selectable symbol, overlaying a selected zone, as represented by the given

selectable symbol, on the physical network topology;

wherein overlaying the selected zone on the physical network topology includes: highlighting

which portions of the physical network topology represent the selected zone;

utilizing distinctive markings in the hierarchical tree to indicate the selected zone in the folder;

and wherein highlighting which portions of the physical network topology represent the selected

zone includes: utilizing distinctive markings in the physical network topology to indicate which,

portions of the physical network topology represent the selected zone from the folder

for each additional zone selected from the folder:

utilizing distinctive markings in the physical network topology to indicate each additionally

selected zone; utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent, each additionally selected zone in the

folder; and the distinctive markings in the folder and the distinctive markings in the physical

network topology enabling a viewer to identify which portions of the physical network topology

correspond to different selected zones in the folder.


22. (Currently Amended) A method for providing management information associated with a

storage area network, the method comprising steps of:

displaying a physical network topology associated with the storage area network on a display

screen, the physical network topology including identification of at least one switch resource that

supports connectivity among resources in the storage area network;

receiving input from a user to display at least one virtual network associated with the storage

area network; and displaying a virtual network topology associated with the at least one virtual

network in relation to the physical network topology on the display screen;

displaying an expandable folder in a hierarchical tree, the hierarchical tree including resources

present in the storage area network; displaying multiple selectable symbols in the expandable

folder, each of the multiple selectable symbols in the folder representing corresponding zones in

the storage area network; receiving selection of a given selectable symbol in the folder; in

response to receiving the selection of the given selectable, symbol, overlaying a selected zone, as

represented by the given selectable symbol, on the physical network topology;

wherein overlaying the selected zone on the physical network topology includes: highlighting

which portions of the physical network topology represent the selected zone;

utilizing distinctive markings in the hierarchical tree to indicate the selected zone in the folder;

and wherein highlighting which portions of the physical network topology represent the selected

zone includes: utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent the selected zone from the folder;

for each additional zone selected from the folder:

utilizing distinctive markings in the physical network topology to indicate each additionally

selected zone; utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent each additionally selected zone in the folder;

and the distinctive markings in the folder and the distinctive markings in the physical network

topology enabling a viewer to identify which portions of the physical network topology

correspond to different selected zones in the folder.


27. (Currently Amended) A computer system for displaying management information associated

with a storage area network, the computer system comprising:

a processor;

a memory unit that stores instructions associated with an

application executed by the processor; and

an interconnect coupling the processor and the memory unit, enabling the computer system to

execute the application and perform operations of: displaying a physical network topology

associated with the storage area network on a display screen, the physical network topology

including identification of at least one switch resource that supports connectivity among host

resources and storage resources in the storage area network; receiving a signal indicating a

selected at least one managed resource associated with the storage area network; and

displaying a virtual network topology associated with the selected at least one managed resource

in relation to the physical network topology;

displaying an expandable folder in a hierarchical tree, the hierarchical tree including resources

present in the storage area network;

displaying multiple selectable symbols in the expandable folder, each of the multiple selectable

symbols in the folder representing corresponding zones in the storage area network;

receiving selection of a given selectable symbol in the folder; in response to receiving the

selection of the given selectable symbol, overlaying a selected zone, as represented by the given

selectable symbol, on the physical network topology; wherein overlaying the selected zone on

the physical network topology includes: highlighting which portions of the physical network

topology represent the selected zone;

utilizing distinctive markings in the. hierarchical tree to indicate the selected zone in the folder;

and wherein highlighting which portions of the physical network topology represent the selected

zone includes: utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network .topology represent the selected zone from the folder;

for each additional zone selected from the folder:

utilizing distinctive markings in the physical network topology to indicate each additionally

selected zone; utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent each additionally selected zone in the folder;

and the distinctive markings in the folder and the distinctive markings in the physical network

topology enabling a viewer to identify which portions of the physical network topology

correspond to different selected zones in the folder.


33. (Cancelled).

34. (Cancelled).

35. (Cancelled).

36. (Cancelled).


42. (Currently Amended) A computer system for displaying management information

associated with a storage area network, the computer system comprising:

a processor;

a memory unit that stores instructions associated with an application executed by the processor;

and an interconnect coupling the processor and the memory unit, enabling the computer system

to execute the application and perform operations of:

in a first region of the display screen:

displaying multiple icons representing corresponding selectable managed entities associated with

the storage area network, at least one of the selectable managed entities representing a virtual

network topology that may be selected for viewing in a second region of the display screen; in

the second region of the display screen:

displaying a physical network topology associated with the storage area network, the physical

network topology including at least one switch resource that supports connectivity among host

resources and storage resources in the storage area network; and

displaying the virtual storage area network topology based on a selection of at least one of the

multiple icons, the virtual storage area network i) being overlayed on the physical network

topology, and ii) including identified ports of the at least one switch resource that are associated

with a corresponding virtual storage area network;

displaying an expandable folder in a hierarchical tree, the hierarchical tree including resources

present in the storage area network;

displaying multiple selectable symbols in the expandable folder, each of the multiple selectable

symbols in the folder representing corresponding zones .in the storage area network;

receiving selection of a given selectable symbol in the folder; in response to receiving the

selection of the given selectable symbol, overlaying a selected zone, as represented by the given

selectable symbol, on the physical network topology;

wherein overlaying the selected zone on the physical network topology includes: highlighting

which portions of the physical network topology represent the selected zone;

utilizing distinctive markings in the hierarchical tree to indicate the selected zone in the folder;

and wherein highlighting which portions of the physical network topology represent the selected

zone includes: utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent the selected zone from the folder;

for each additional zone selected from the folder.

utilizing distinctive markings in the physical network topology to indicate each additionally

selected zone; utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent each additionally selected zone in the folder;

and the distinctive markings in the folder and the distinctive markings in the physical network

topology enabling a viewer to identify which portions of the physical network topology

correspond to different selected zones in the folder.


45. (Cancelled).


48. (Currently Amended) A computer program product including a computer-readable medium

having instructions stored thereon for processing data information, such that the instructions,

when carried out by a processing device, enable the processing device to perform the steps of:

displaying a physical network topology associated with the storage area network on a display

screen, the physical network topology including identification of at least one switch resource that

supports connectivity among resources in the storage area network;

receiving input from a user to display at least one virtual network associated with the storage

area network; and displaying a virtual network topology associated with the at least one virtual

network in relation to the physical network topology on the display screen;

displaying an expandable folder in a hierarchical tree, the hierarchical tree including resources

present in the storage area network;

displaying multiple selectable symbols in the expandable folder, each of the multiple selectable

symbols in the folder representing corresponding zones in the storage area network;

receiving selection of a given selectable symbol in the folder; in response to receiving the

selection of the given selectable symbol, overlaying a selected zone, as represented by the given

selectable symbol, on the physical network topology;

wherein overlaying the selected zone on the physical network topology includes: highlighting

which portions of the physical network topology represent the selected zone;

utilizing distinctive markings in the hierarchical tree to indicate the selected zone in the folder;

and wherein highlighting which portions of the physical network, topology represent the selected

zone includes: utilizing distinctive markings in the physical network topology to indicate which

portions of the physical network topology represent the selected zone from the folder;

for each additional zone selected from the folder:

utilizing distinctive markings in the physical network topology to indicate each additionally

selected zone;

utilizing distinctive markings in the physical network topology to indicate which portions of the,

physical network topology represent each additionally selected zone in the folder; and the

distinctive markings in the folder and the distinctive markings in the physical network topology

enabling a viewer to identify which portions of the physical network topology correspond to

different selected zones in the folder.

49. (Currently Amended) A computer system associated with a storage area network, the

computer system providing:

means for displaying a physical network topology associated with the storage area network on a

display screen, the physical network topology including identification of at least one switch

resource that supports connectivity among resources in the storage area network;

means for receiving input from a user to display at least one virtual network associated with the

storage area network; and means for displaying a virtual network topology associated with the at

least one virtual network in relation to the physical network topology on the display screen;

means for displaying an expandable folder in a hierarchical tree, the hierarchical tree including

resources present in the storage area network;

means for displaying multiple selectable symbols in the expandable folder, each of the multiple

selectable symbols in the folder representing corresponding zones in the storage area network;

means for receiving selection of a given selectable symbol in the folder; means for overlaying a

selected zone, as represented by the given selectable symbol, on the physical network topology

in response to receiving the selection of the given selectable symbol;

wherein overlaying the selected zone on the physical network topology includes: highlighting

which portions of the physical network topology represent the selected zone;

means for utilizing distinctive markings in the hierarchical tree to indicate the selected zone in

the folder; and wherein highlighting which portions of the physical network, topology represent

the selected zone includes: utilizing distinctive markings in the physical network topology to

indicate which portions of the physical network topology represent the selected zone from the

folder;

for each additional zone selected from the folder:

means for utilizing distinctive markings in the physical network topology to indicate each

additionally selected zone;

means for utilizing distinctive markings in the physical network topology to indicate which

portions of the, physical network topology represent each additionally selected zone in the

folder; and the distinctive markings in the folder and the distinctive markings in the physical

network topology enabling a viewer to identify which portions of the physical network topology

correspond to different selected zones in the folder.


50. (Cancelled).

51. (Cancelled).

52. (Cancelled).

53. (Cancelled).


54. (Currently Amended) A method as in claim 1 further comprising:

 in response to receiving selection of the given selectable symbol in the folder of the hierarchical

tree, initiating expansion of the physical network topology to include additional network

resources of the storage area network.

# *Reasons for Allowance*

1.      The following is an examiner's statement of reasons for allowance: of claims 1-7, 11-32,

42-44, 48-49 and 54-56.  Claims 1-7, 11-32, 42-44, 48-49 and 54-56 are allowed because the

prior art did not teach or reasonably suggest in response to receiving the selection of the given

selectable symbol, overlaying a selected zone, as represented by the given selectable symbol, on

the physical ,network topology; wherein overlaying the selected zone on the physical, network

topology includes: highlighting which portions of the physical network topology represent the

selected zone; utilizing distinctive markings in the hierarchical tree to indicate the selected zone

in the folder; and wherein highlighting which portions of the physical network topology

represent the selected zone, includes: utilizing distinctive markings in the physical network

topology to indicate which portions of the physical network topology represent the selected zone

from the folder; for each additional zone selected from the folder: utilizing distinctive markings

in the physical network topology to indicate each additionally selected zone; utilizing distinctive

markings in the physical network topology to indicate which portions of the physical network

topology ,represent each additionally selected zone in the folder; and the distinctive markings in

the folder and the distinctive markings in the physical network topology enabling a viewer to

identify which portions of the physical network topology correspond to different selected zones

in the folder.  These features when combined with the other limitations and features of the claims

make the claims patentably distinct over the prior art.

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARSHALL MCLEOD whose telephone number is (571)270-3808. The examiner can normally be reached on Monday - Thursday 6:30 a.m-4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marshall McLeod
Art Unit 2457
12/2/2008

/ARIO ETIENNE/

Supervisory Patent Examiner, Art Unit 2457